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Déjà vecu for news events but not personal events: A dissociation between autobiographical and non-autobiographical episodic memory processing

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ABSTRACT

In déjà vu, the feeling that what we are currently experiencing we have experienced before is fleeting and is not accepted as true. In contrast, in déjà vecu or "recollective confabulation", the sense of déjà vu is persistent and convincing, and patients genuinely believe that they have lived through the current moment at some previous time. In previous reports of cases of déjà vecu, both personal events and non-personal, world events gave rise to this experience. In this paper we describe a patient whose déjà vecu experiences are entirely restricted to non-personal events, suggesting that autobiographical and non-autobiographical episodic memory processing can dissociate. We suggest that this dissociation is secondary to differences in the degree to which personal and emotional associations are formed for these two different types of event, and offer a two-factor theory of déjà vecu.

1. Introduction

Disorders and distortions of memory can teach us important lessons about the structure and function of normal memory. For example studies of amnesia and confabulation (Kopelman, 2002), as well as normal errors of everyday memory (Schacter & Slotnick, 2004) have provided valuable insights into dissociable memory processes and the brain regions which support them.

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Déjà vu describes the strange sensation that one has already encountered the current situation at some point in the past. The defining feature of déjà vu is that it is a disorder of familiarity – one feels that the current situation is familiar, despite the certain knowledge that this cannot be so. However a pathological form of déjà vu, known as "déjà vecu" or "recollective confabulation" has also been described (Arnaud, 1896; Bertrand, Martinon, Souchay, & Moulin, 2016; Craik et al., 2014; Moulin, 2013; Moulin, Conway, Thompson, James, & Jones, 2005; O'Connor, Lever & Moulin, 2010; Tabet & Sivaloganathan, 2001). In déjà vecu, the sense of déjà vu is persistent and convincing rather than being fleeting, and patients genuinely believe that they have lived through the current moment at some previous time. These beliefs can take on a delusional intensity, and result in considerable disruption in day to day life.

Moulin and colleagues (Moulin, 2013; Moulin et al., 2005) have described detailed experimental investigation of a series of cases with déjà vecu. Their patients presented with the belief that they had already experienced events before. They had withdrawn from previously enjoyed activities, for example reading and watching TV, because they felt they had seen it all before. This sense of déjà vecu also permeated their daily activities, for example AKP complained that every time he went for a walk "it was the same bird in the same tree singing the same song" (Moulin et al., 2005, p. 1364), and MA felt that she could predict the future, as she had lived through it all before.

In an elegant series of experiments Moulin and colleagues (Moulin 2013; Moulin et al., 2005) demonstrated that these patients shared a characteristic pattern of memory impairment. First, they showed high levels of false positives on recognition tasks. Second, they had a metacognitive deficit in which they were more confident in their responses than a memory impaired comparison group. Third, they showed a tendency to produce "recollective confabulations" to justify their déjà vecu, in which they provided false details and false accounts of having experienced items and events before. On the basis of this evidence Moulin (2013) concluded that déjà vecu, or recollective confabulation, results from an attempt to justify inappropriate feelings of familiarity resulting from temporal lobe pathology.

In this paper we describe a patient with a very similar condition, with the exception that his déjà vecu is entirely restricted to non-personal events. In particular he has marked déjà vecu for news and sporting events encountered on television, but strikingly has never experienced déjà vecu for events in which he is personally involved.

2. Case description

We saw EN in 2005–2006, when he was 38 years old, when he was referred to MC for assessment of an "apparent delusional condition". Twelve years prior to seeing us, EN had suffered a severe closed head injury when he fell from a cliff. Hospital reports from the time indicate a head injury involving combined hypoxic and diffuse axonal damage, and a depressed fracture of the left frontal bones. Initial Glasgow Coma Scale score was 6, and he remained in post-traumatic amnesia for four months. He was discharged home five months after his accident to live with his father. His neuropsychological report on discharge indicated a severe memory impairment, word finding difficulties and executive functioning impairments, with lack of insight into his difficulties.

When we assessed EN 12 years later he was cheerful, alert, fully oriented and appeared to have made a remarkable recovery. He provided a full history and reported that he could remember events up to and including part of the fall. EN was not working and remained living with his father. He was taking pizotifen daily for headaches and omeprazole magnesium for reflux, but no other medications. He reported two other head injuries, both prior to his fall; on both occasions he was struck on the head by a cricket ball and was concussed but made a full recovery. He had no other neurological or psychiatric history.

When questioned about any lasting effects of his accident, EN reported that he had some problems with his memory, and felt he was more impatient than he used to be. He did not report any other problems. However his father reported significant problems consistent with déjà vecu. He said that EN had delusions about events re-occurring, especially with large sporting events that he was watching on television. When EN saw these events on television he insisted that he had already seen them before. He always reported that he had seen them in 1994 when he was in the Brain Injury Unit of the hospital where he had been treated following his accident. His father reported that EN was absolutely convinced that he had seen these events before, and could not be reasoned with about the inconsistencies these beliefs entailed. Indeed he would occasionally become aggressive if his beliefs were challenged.

2.1. *EN's déjà vecu*

We questioned EN in detail about his déjà vecu experiences. When asked whether he ever felt that the same things happened to him more than once, EN responded that he did feel this way about things that he read in the papers and watched on TV, specifically for sport, soap operas, and news. For example when EN was first interviewed, the Australian cricket team had recently played the first international Twenty20 game against South Africa in Australia, and were soon to travel to South Africa for the away game. EN told us that he had already seen these matches in 1994 when he was in hospital after his head injury.

EN described experiencing this feeling for numerous sporting and news events, including several cricket matches, the July 2005 bombings in London, and the 2004 tsunami. He did not believe that the events themselves were happening twice, but believed that they had happened just once in 1994, and were later repeated on the television as if they were current events. He reasoned that this was because Sydney (where he had been hospitalised in 1994) had television programming that was significantly ahead of his small rural home town, which he believed was screening events several years after they had occurred.

> *EN: I saw the tsunami and I said "That happened when I was in hospital in Sydney!" And I said – "We're finally catching up!". I*